

Claims

1. Nucleic acid,
characterized in that
it shows a differential expression in tumor cells and normal
cells, comprising

- (a) one of the nucleic acid sequences shown in Fig. 11,
- (b) partial sequences thereof with a length of at least 50,
preferably at least 100, and especially preferably at
least 200 nucleotides,
- (c) a sequence that hybridizes with a sequence that
consists of (a) and/or (b) under stringent conditions,
and/or
- (d) a sequence that is complementary to a sequence that
consists of (a), (b) and/or (c).

2. Nucleic acid according to claim 1,

wherein

the tumor cells are selected from rat fibroblasts that are
transformed with H-Ras, N-Ras and K-Ras.

3. Nucleic acid according to claim 1 or 2,

wherein

the normal cells are selected from 208F rat fibroblasts.

4. Nucleic acid according to one of claims 1 to 3,

wherein

it shows an enhanced expression in a Ras-transformed cell line in
comparison to a non-transformed cell line or is expressed de novo
in a Ras-transformed cell line.

5. Nucleic acid according to one of claims 1 to 4,

wherein

its expression in Ras-transformed cells is adjusted down.

6. Nucleic acid according to claim 4,

wherein

it comprises one of sequences N1-N297 according to Fig. 11 or a sequence that thus hybridizes under stringent conditions.

7. Nucleic acid according to claim 6, selected from the sequences that are not yet described as mRNA in rats:

N100, N103, N104, N105, N106, N107, N109, N110, N111, N112, N113, N114, N115, N116, N117, N118, N12, N120, N121, N122, N124, N125, N126, N127, N128, N129, N13, N130, N131, N133, N134, N135, N136, N137, N138, N139, N14, N140, N141, N143, N144, N145, N146, N147, N148, N149, N150, N151, N152, N153, N154, N156, N157, N158, N16, N160, N161, N162, N163, N164, N165, N166, N167, N168, N169, N17, N170, N171, N172, N173, N174, N175, N176, N177, N178, N18, N180, N181, N182, N183, N184, N185, N186, N187, N188, N189, N19, N190, N191, N192, N193, N194, N195, N196, N197, N198, N199, N2, N20, N201, N202, N203, N204, N205, N206, N207, N208, N209, N21, N210, N211, N212, N213, N214, N215, N216, N217, N218, N219, N22, N220, N221, N222, N223, N224, N225, N226, N227, N228, N229, N23, N230, N231, N232, N234, N236, N237, N238, N239, N24, N240, N241, N242, N244, N246, N247, N248, N249, N25, N250, N251, N252, N253, N254, N255, N256, N257, N258, N259, N260, N261, N262, N263, N264, N265, N267, N268, N269, N270, N271, N272, N273, N274, N275, N276, N277, N278, N279, N28, N280, N281, N282, N283, N284, N285, N286, N287, N288, N289, N29, N290, N291, N292, N293, N294, N295, N296, N297, N30, N32, N35, N38, N4, N44, N46, N51, N55, N56, N57, N59, N60, N62, N64, N65, N68, N69, N71, N73, N74, N75, N76, N77, N78, N79, N80, N81, N82, N84, N86, N87, N88, N89, N9, N90, N91, N92, N93, N94, N96, N97, N98, N99

8. Nucleic acid according to claim 6, selected from sequences for which homologous sequences are described in model organisms, such as mice, chickens, Xenopus, C. elegans, Drosophila, but which are not known in humans:

N103, N105, N112, N113, N115, N116, N121, N127, N128, N13, N14, N151, N16, N163, N164, N17, N182, N184, N185, N189, N19, N199, N2, N20, N212, N225, N241, N249, N252, N257, N264, N269, N289, N29, N296, N30, N38, N4, N56, N57, N59, N60, N64, N65, N68, N69, N74, N9

9. Nucleic acid according to claim 5, wherein it comprises one of sequences T1-T235 according to Fig. 11 or a sequence that thus hybridizes under stringent conditions.

10. Nucleic acid according to claim 9 selected from the sequences that are not yet described as mRNA in rats:

T1, T100, T101, T102, T103, T104, T105, T106, T107, T108, T109, T110, T111, T112, T113, T114, T115, T116, T118, T119, T12, T120, T121, T122, T123, T124, T125, T126, T127, T128, T129, T130, T131, T134, T135, T136, T137, T14, T140, T141, T142, T144, T145, T146, T147, T148, T149, T150, T151, T152, T153, T154, T155, T156, T157, T158, T159, T160, T163, T164, T165, T168, T169, T17, T170, T171, T172, T173, T174, T175, T177, T178, T179, T18, T180, T181, T182, T183, T184, T185, T186, T187, T188, T189, T19, T190, T191, T192, T194, T195, T196, T197, T198, T199, T2, T20, T200, T201, T202, T203, T204, T205, T206, T207, T208, T209, T210, T211, T212, T213, T214, T215, T216, T217, T218, T219, T220, T221, T222, T223, T224, T225, T226, T227, T228, T229, T230, T231, T232, T233, T234, T235, T236, T237, T238, T239, T24, T241, T242, T243, T244, T245, T247, T248, T249, T25, T250, T251, T252, T253, T27, T28, T29, T3, T31, T32, T34, T35, T36, T37, T39, T4, T40, T42, T46, T48, T49, T50, T52, T58, T59, T60, T61, T62, T63, T65, T66, T68, T69, T7, T70, T73, T76, T77, T78, T79, T8, T81, T82, T83, T84, T85, T86, T87, T88, T9, T90, T91, T92, T94, T95, T96, T97, T99

11. Nucleic acid according to claim 9, selected from sequences for which homologous sequences are described in model organisms such as mice, chickens, Xenopus, C. elegans, drosophila, but which are not known in humans:

T1, T113, T121, T122, T137, T142, T18, T2, T20, T222, T232, T238, T25, T3, T31, T32, T35, T37, T49, T50, T59, T60, T63, T65, T69, T7, T73, T8,

12. Nucleic acid according to one of claims 1 to 11, wherein

it has a homology to human sequences, especially human ESTs or EST clusters.

13. Nucleic acid according to claim 12, selected from

N1, N10, N101, N102, N103, N104, N108, N109, N11, N112, N116, N12, N121, N122, N125, N126, N128, N129, N13, N131, N132, N134, N136, N137, N14, N142, N144, N148, N149, N151, N152, N154, N156, N158, N159, N160, N163, N165, N17, N175, N18, N180, N181, N182, N183, N186, N187, N188, N189, N192, N196, N198, N199, N20, N202, N204, N205, N207, N209, N21, N212, N213, N215, N218, N22, N228, N234, N235, N238, N242, N243, N248, N249, N250, N252, N253, N255, N256, N257, N26, N260, N261, N263, N264, N266, N267, N270, N271, N275, N28, N280, N283, N289, N29, N294, N3, N30, N31, N32, N34, N35, N36, N38, N39, N4, N40, N42, N43, N44, N45, N46, N48, N49, N5, N50, N51, N55, N58, N59, N61, N62, N65, N7, N70, N71, N74, N75, N77, N78, N79, N80, N81, N82, N85, N89, N92, T10, T100, T103, T105, T109, T11, T111, T116, T117, T118, T119, T120, T121, T124, T125, T129, T132, T133, T137, T138, T139, T14, T141, T143, T144, T146, T147, T148, T15, T153, T156, T159, T16, T160, T162, T163, T166, T17, T170, T172, T174, T175, T176, T182, T183, T185, T186, T188, T189, T19, T191, T192, T193, T196, T2, T20, T202, T204, T205, T208, T21, T211, T212, T215, T216, T217, T219, T222, T223, T224, T225, T226, T227, T230, T232, T235, T237, T238, T239, T240, T243, T244, T245, T25, T250, T251, T253, T27, T3, T31, T34, T35, T36, T37, T38, T40, T42, T43, T44, T45, T47, T48, T49, T50, T54,

T58, T59, T6, T60, T61, T62, T64, T66, T67, T68, T69, T72, T73, T75, T76, T80, T82, T86, T88, T89, T9, T94, T96, T98,

14. Nucleic acid according to claim 13,

wherein

it represents a human gene, a human cDNA or a partial sequence thereof and wherein the corresponding rat-homologous gene shows a differential expression in tumor cells and normal cells.

15. Nucleic acid according to claim 14,

wherein

it comprises one of the sequences shown in Figure 12.

16. Nucleic acid according to one of claims 1 to 15,

wherein

it is arranged as an oligonucleotide or as cDNA on an array.

17. Use of a nucleic acid according to one of claims 1 to 16 or a coded polypeptide thereof as a target for diagnostic or therapeutic purposes.

18. Use according to claim 17 for the production of an agent for tumor diagnosis or tumor therapy.

19. Use according to claim 17 or 18,

wherein

the expression of nucleic acid is modulated.

20. Use according to claim 19,

wherein

the modulation comprises a gene-therapy treatment of the nucleic acid.

21. Use according to claim 19,

wherein

the modulation comprises an administration of antisense-RNA or ribozymes.

22. Use according to claim 17 or 18,

wherein

the amount and/or localization of the polypeptide that is coded by the nucleic acid is modulated.

23. Use according to claim 22,

wherein

the modulation comprises an administration of the polypeptide or an activator thereof.

24. Use according to claim 22,

wherein

the modulation comprises an administration of antibodies directed against the polypeptide or inhibitors of the polypeptide.

25. Process for testing the influence of active substances on the gene expression,

wherein

an active substance is added to a cell line, RNA is isolated from the cell line, the RNA is labeled, then hybridized on an array, and then the gene expression profile of the cell line is obtained.

26. Process according to claim 25,

wherein

the gene expression profile of cell line (a) that is treated with the active substance is compared to the gene expression profile of a cell line that is not treated with the active substance and/or (b) to the gene expression profile of a cell line that is treated with the active substance but is different.